

What is claimed is:

1. An apparatus, comprising:
  - an XIP tracker to track usage of XIP applications executing from one of at least two memory devices and generate XIP usage data;
  - an XIP analyzer to analyze the XIP usage data in accordance with at least one predetermined criteria and determine a desired location of said XIP applications; and
  - an XIP application relocater to relocate the XIP applications between the at least two memory devices in accordance with the desired location.
2. The apparatus of claim 1, wherein said at least two memory devices comprises an internal flash memory device and an external flash memory device.
3. The apparatus of claim 1, wherein said XIP tracker monitors the usage of the XIP applications in the at least two memory devices to generate the XIP usage data and stores the XIP usage data in an XIP usage table.
4. The apparatus of claim 3, wherein said XIP usage table is stored in one of the memory devices.
5. The apparatus of claim 1, wherein the XIP tracker is adapted to update the XIP usage data as the XIP applications are used.
6. The apparatus of claim 1, wherein the XIP analyzer generates a list of the desired locations of said XIP applications.

7. The apparatus of claim 6, wherein the XIP analyzer orders the XIP usage data table in accordance with the predetermined criteria to form the list of the desired locations of the XIP applications.

8. The apparatus of claim 7, wherein said list comprises a list of XIP applications having a desired location in internal flash memory.

9. The apparatus of claim 8, wherein said list is stored in flash memory.

10. The apparatus of claim 1, wherein said predetermined criteria comprises at least two of the following:

frequency of usage of the XIP applications;

size of the XIP applications; and

duration of usage of the XIP applications.

11. The apparatus of claim 1, wherein said predetermined criteria is updateable.

12. The apparatus of claim 1, wherein said XIP relocater compares the desired location of the XIP applications to the current location of the XIP applications to determine whether to relocate the XIP applications.

13. The apparatus of claim 1, wherein said XIP relocater updates an XIP location table after relocation of the XIP applications.

14. A method, comprising:

tracking usage of XIP applications stored in at least two flash memories to generate XIP usage data;

analyzing the XIP usage data in accordance with at least one predetermined criteria to determine a desired location of said XIP applications; and

relocating the XIP applications between the at least two flash memories in accordance with said desired location.

15. The method of claim 14 wherein said tracking usage of XIP applications stored in the at least two flash memories to generate XIP usage data comprises:

monitoring usage of the XIP applications stored in flash memories to develop the XIP usage data; and

storing the XIP usage data in a XIP usage table.

16. The method of claim 14, wherein said tracking usage of XIP applications stored in the at least two flash memories to generate XIP usage data comprises updating said XIP application usage data as usage changes over time.

17. The method of claim 14, wherein said analyzing the XIP application usage data in accordance with at least one predetermined criteria to determine a desired location of said XIP applications comprises generating a list of desired locations for the XIP applications.

18. The method of claim 17, wherein said list of desired locations for the XIP applications comprises a list of XIP applications having a desired location in internal flash memory.

19. The method of claim 14, wherein said at least one predetermined criteria comprises frequency of usage of the XIP applications.

20. The method of claim 14, wherein said at least one predetermined criteria comprises the size of the XIP applications.

21. The method of claim 14, further comprising updating said at least one predetermined criteria.

22. The method of claim 14, wherein said relocating the XIP applications to particular flash memories in accordance with said desired location, comprises generating a list of current XIP application locations and comparing said list of current XIP application locations with the desired location of the XIP applications to determine whether the XIP applications should be relocated.

23. The method of claim 14, further comprising updating an XIP application location table after the XIP applications are relocated.

24. The method of claim 14, wherein relocating the XIP applications in accordance with said desired location comprises:

pausing execution of the XIP applications;

copying XIP applications located in internal flash memory which have been identified as having a desired location in external flash memory from said internal flash memory to a temporary storage;

moving XIP applications located in external flash memory which have a desired location in internal flash memory from said external flash memory to said internal flash memory; and

moving the XIP applications in the temporary storage from the temporary storage to said external flash memory.

25. An article, comprising a storage medium, said storage medium having stored thereon instructions, said instructions, when executed to relocate XIP applications in internal flash memory and external flash memory, comprising:

tracking usage of XIP applications stored in an internal flash memory and an external flash memory to generate XIP usage data;

analyzing the XIP usage data in accordance with at least one predetermined criteria to determine a desired location of said XIP applications; and

relocating the XIP applications in the internal flash memory and the external flash memory in accordance with said desired location.

26. The article of claim 25, said instructions further resulting in updating said predetermined criteria.

27. The article of claim 25, said instructions further resulting in generating a list of current XIP application locations and comparing said list of current XIP application locations with the desired location of the XIP applications to determine whether the XIP applications should be relocated.

28. An apparatus comprising:

a processor;

an internal flash memory coupled to the processor to store XIP applications;

an external flash memory coupled to the processor to store XIP applications; and

an XIP application manager coupled to the internal flash memory and the external flash memory to track usage of XIP applications and relocate the XIP applications in

accordance with said usage between the internal flash memory and the external flash memory.

29. The apparatus of claim 28 wherein said XIP application manager comprises:

an XIP usage tracker to track usage of XIP applications in internal flash memory and external flash memory and to generate XIP usage data;

an XIP analyzer to analyze the XIP usage data in accordance with at least one predetermined criteria and to determine a desired location of said XIP applications; and

an XIP application relocater to relocate the XIP applications between the internal flash memory and the external flash memory in accordance with the desired location.